

- PT could*
- (b) separating said first product into said light olefins and a heavy hydrocarbon fraction [comprising] including heavy hydrocarbons;
  - (c) feeding said heavy hydrocarbon fraction to a separate auxiliary reactor; and
  - (d) contacting said heavy hydrocarbon fraction with a second molecular sieve catalyst in said separate auxiliary reactor under conditions effective to promote conversion of said heavy hydrocarbons to light olefins.
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*23*

21. (New) The method of claim 2 wherein said second molecular sieve catalyst comprises a zeolite.

*24*

22. (New) The method of claim 4 wherein said second molecular sieve catalyst comprises a zeolite.

*25*

23. (New) A method for increasing light olefin yield during conversion of oxygenates to olefins comprising:

- (a) contacting a feed including at least one oxygenate in a primary reactor with a silicoaluminophosphate selected from the group consisting of SAPO-44, SAPO-34, SAPO-18, and SAPO-17, under first conditions effective to produce a first product including light olefins;
- (b) separating said first product into said light olefins and a heavy hydrocarbon fraction including heavy hydrocarbons;
- (c) feeding said heavy hydrocarbon fraction to a separate auxiliary reactor; and
- (d) contacting said heavy hydrocarbon fraction with ZSM-5 in said separate auxiliary reactor under conditions effective to promote conversion of said heavy hydrocarbons to light olefins.

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24. (New) The method of claim 21 wherein said zeolite is ZSM-5.

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25. (New) The method of claim 22 wherein said zeolite is ZSM-5.

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26. (New) The method of claim 1 wherein said non-zeolitic molecular sieve catalyst comprises a microporous framework including pores having a diameter in the range of from about 5 to about 10 Angstroms.

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27. (New) The method of claim 2 wherein said first, non-zeolitic molecular sieve catalyst and said second molecular sieve catalyst comprise a microporous framework including pores having a diameter in the range of from about 5 to about 10 Angstroms.

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28. (New) The method of claim 1 wherein said non-zeolitic molecular sieve catalyst comprises a microporous framework including pores having a diameter less than about 5 Angstroms.

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29. (New) The method of claim 2 wherein said first, non-zeolitic molecular sieve catalyst comprises a microporous framework including pores having a diameter less than about 5 Angstroms.

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30. (New) The method of claim 3 wherein said non-zeolitic molecular sieve catalyst comprises a microporous framework including pores having a diameter less than about 5 Angstroms.

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31. (New) The method of claim 4 wherein said first, non-zeolitic molecular sieve catalyst comprises a microporous framework having a diameter less than about 5 Angstroms.

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32. (New) The method of claim 1 wherein said heavy hydrocarbon fraction

consists essentially of said heavy hydrocarbons.

<sup>35</sup>  
~~33.~~ (New) The method of claim 2 wherein said heavy hydrocarbon fraction consists essentially of said heavy hydrocarbons.

<sup>36</sup>  
~~34.~~ (New) The method of claim 3 wherein said heavy hydrocarbon fraction consists essentially of said heavy hydrocarbons.

<sup>37</sup> <sup>25</sup>  
~~35.~~ (New) The method of claim ~~23~~ wherein said heavy hydrocarbon fraction consists essentially of said heavy hydrocarbons.

<sup>38</sup>  
~~36.~~ (New) A method for increasing light olefin yield during conversion of oxygenates to olefins comprising:

- (a) contacting a feed including an oxygenate in a primary reactor with a non-zeolitic molecular sieve catalyst under conditions effective to produce a product including light olefins;
- (b) separating said product into said light olefins and a heavy hydrocarbon fraction including heavy hydrocarbons; and
- (c) recycling said heavy hydrocarbon fraction to said primary reactor.

<sup>39</sup>  
~~37.~~ (New) The method of claim 5, wherein said second non-zeolitic molecular sieve catalyst is SAPO-34.

<sup>40</sup>  
~~38.~~ (New) The method of claim 6 wherein said second molecular sieve catalyst is SAPO-34.

#### REMARKS

The applicant respectfully requests that the above amendments be entered. The above amendments add no new matter and are intended to further